

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

Paper No. 18

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte H. WORTH LOVE

Appeal No. 1999-1960
Application No. 09/075,631

ON BRIEF

Before McCANDLISH, *Senior Administrative Patent Judge*, and
STAAB, and JENNIFER D. BAHR, *Administrative Patent Judges*.

STAAB, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's final rejection of claims 20-29, all the claims currently pending in the application. An amendment filed subsequent to the final rejection has been entered. See the advisory letter mailed December 11, 1998 (Paper No. 10).

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Appellant's invention pertains to "a solenoid operated condensate drain valve operating in real-time response to the presence of an electrically conductive media in the interior chamber of the condensate drain valve" (specification, page 5). A further understanding of the invention can be derived from a reading of exemplary claim 10, which is reproduced in the appendix to appellant's brief.

The single reference relied upon by the examiner as evidence of obviousness is:

Frantz et al. (Frantz)	4,336,821	Jun. 29,
1982	Claims 20-29 stand rejected under 35 U.S.C. § 112,	
	second paragraph, as being indefinite.	

Claims 20-29 stand further rejected under 35 U.S.C. § 103 as being unpatentable over Frantz.

Reference is made to appellant's main and reply briefs (Paper Nos. 12 and 14) and to the examiner's answer (Paper No. 13) for the respective positions of appellant and the examiner regarding the merits of these rejections. In addition, appellant relies upon declarations by H. Worth Love and Alexander Lucitti in support of appellant's position that the appealed claims are patentable over the Frantz reference.

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The 35 U.S.C. § 112, second paragraph, rejection

The examiner's rationale for this rejection is found on page 4 of the answer and reads as follows:

It is submitted that the recitation "for operating said solenoid in real-time" [in claim 20, lines 12-13] is unduly functional and is not supported by a "means" recitation. Furthermore "real-time" is hyphenated in claim 20, whereas "real time" is not hyphenated in the specification. It appears [that] the recitation of "real-time" is unspecific and is not specific enough to limit the claim to a means which operates the solenoid at all times when the probe senses liquid.

We will not sustain this rejection. First, to the extent the rejection is based on the premise that the recitation of the hyphenated term "real-time" in the claims as opposed to the unhyphenated term "real time" that appears in the specification introduces an uncertainty into the claims, we do not agree. In our view, the ordinarily skilled artisan would consider the terms "real-time" (claims) and "real time" (specification) to mean one and the same thing, namely, that the present invention does not incorporate any non-inherent delays in the response time of the valve to the detection of condensate, such that the valve opens and closes substantially instantaneously with the detection by the sensor of the

presence or absence of condensate within the valve body
(specification, page 14; brief, page 14).

As to the examiner's determination that the claims are indefinite because the recitation "for operating said solenoid in real-time" in claim 20 is unduly functional and not supported by sufficient structure, it is by now well settled that there is nothing intrinsically wrong in defining something by what it does rather than by what it is. *In re Swinehart*, 439 F.2d 210, 212, 169 USPQ 226, 228 (CCPA 1971). Judging from the examiner's remarks, it appears that his concern is with the breadth of the claims rather than with any indefinite language therein. Admittedly, claim 20 covers any and all drain valves that include an electric control circuit that connects the sensor and the solenoid and operates the solenoid in "real-time" response to the sensor's detection of condensate, and that meets the requirements called for elsewhere in the claim. This does not, however, make the claim indefinite. Instead, it simply makes the claim broad. Breadth, however, is not to be equated with indefiniteness. *See, for example, In re Miller*, 441 F.2d 689, 693, 169 USPQ

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597,

600 (CCPA 1971).

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For these reasons, the standing rejection of the appealed claims under 35 U.S.C. § 112, second paragraph, will not be sustained.

The 35 U.S.C. § 103 rejection

The examiner concedes that the solenoid actuated drain valve of Frantz does not include an electric control circuit for operating the solenoid in real-time. The examiner contends, however, that:

[i]t would have been an [sic, a] matter of design to a person of ordinary skill in the art at the time the invention was made to eliminate the time delay of Frantz et al with the consequent loss [of] the time delay function in order to operate in "real-time." [Final rejection, page 2.]

The examiner further explains this rationale in the answer

as follows:

One of ordinary skill in the art at the time the invention was made would have found it obvious to eliminate the cycled operation of Frantz et al because elimination of the cycled operation would result in the consequent loss of the function of the cycled operation, namely, minimizing the loss of air pressure. Therefore, if one of ordinary skill in the art is not concerned with the loss of air pressure, he would have found it obvious to eliminate the cycled operation.

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[Answer, page 3.]

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In the background section of the specification, Frantz states that one of the problems with drain valves prior to Frantz is excessive loss of reservoir pressure (column 1, lines 31-40). In response to the problem, one of the objectives of Frantz is to cyclically open and close the valve for draining the liquid matter with a minimum loss of reservoir pressure (column 1, lines 50-55). In furtherance of this objective, Frantz provides a control circuit that operates with a time delay of about 20 seconds between the time the sensor 58 first detects the presence of liquid matter and the energizing of the solenoid 58 to open the valve (column 7, line 49 through column 8, line 2). Thereafter the valve continues to cycle between an open cycle of about 0.2 seconds and a closed cycle of about 20 seconds until the liquid matter is no longer detected by the sensor 58 (column 8, lines 23-38). According to Frantz, this brief open and relatively long closed operating cycle ensures that the loss of reservoir pressure in the operation of the drain valve is minimal (column 8, lines 38-45 and 56-65).

Based on our above reading of Frantz, we do not think one

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of ordinary skill in the art, in light of that reference's teachings, would have indiscriminately eliminated the cycling operation of that reference, along with its time delay means, because in so doing it would appear that one would be required to disregard and abandon one of the expressly stated objectives of Frantz, namely, to minimize the loss of pressure in the reservoir. Consequently, the examiner's attempt to justify the proposed elimination of the cycling operation of Frantz by rationalizing that "if one of ordinary skill in the art is not concerned with the loss of air pressure, he would have found it obvious to eliminate the cycled operation" (answer, page 3) is not well taken. In this regard, the examiner has not explained *why* one of ordinary skill in the art, in light of the teachings of Frantz, would have considered the loss of air pressure to be of no concern. The Court of Appeals for the Federal Circuit clearly stated that it is erroneous to consider the references in less than their entireties, i.e., to disregard disclosures in the references that diverge from and teach away from the invention at hand. *W. L. Gore and Associates, Inc. v. Garlock, Inc.*, 721 F.2d

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1540, 1550, 220 USPQ 303, 311 (Fed. Cir. 1983). From our perspective, this is precisely what the examiner has done in arriving at a conclusion of obviousness based on the teachings of Frantz alone.

As to the view that it would have been obvious to modify Frantz in the proposed manner by the examiner because it would merely involve the elimination of the cycled operation with the consequent loss of function of the cycled operation, it is true that in *In re Karlson*, 311 F.2d 581, 584, 136 USPQ 184, 186 (CCPA 1963) the Court stated that "omission of an element and its function in a combination is an obvious expedient if the remaining elements perform the same functions as before." The Court recognized, however, that this is not a mechanical rule, and that such language in *Karlson* was not intended to short circuit the determination of obviousness mandated by 35 U.S.C.

§ 103. See *In re Wright*, 343 F.2d 761, 769-70, 145 USPQ 182, 190 (CCPA 1965). Thus, as in reviewing any obviousness determination, we must first look to the prior art and ascertain whether the prior art teachings would appear to be sufficient to one of ordinary skill in the art to suggest making the claimed modification proposed by the examiner. See, for example, *In re Lulu*, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1984). Here, for the reasons discussed

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above, we consider that Frantz teaches away from eliminating the cycled operation with its time delay function, such that the examiner's proposed modification is not fairly suggested by the reference itself. Moreover, we are in accord with appellant that eliminating the cycled operation in Frantz would altogether change the principle of operation of the Frantz drain valve, which is a further indication that the proposed modification would not have been obvious in light of the reference teachings. See *In re Ratti*, 270 F.2d 810, 813, 123 USPQ 349, 352 (CCPA 1959).

In light of the foregoing, the standing rejection of the appealed claims as being unpatentable over Frantz will not be sustained. Since we hold that the examiner has not established a *prima facie* case of obviousness, it is unnecessary for us to consider appellant's evidence of nonobviousness (i.e., the declarations of Love and Lucitti).

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Summary

The standing rejections under 35 U.S.C. § 112 and 35
U.S.C. § 103 are reversed.

The decision of the examiner is reversed.

REVERSED

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HARRISON E. McCANDLISH)	
Senior Administrative Patent Judge))
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)	BOARD OF PATENT
LAWRENCE J. STAAB)	
Administrative Patent Judge)	APPEALS AND
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)	INTERFERENCES
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